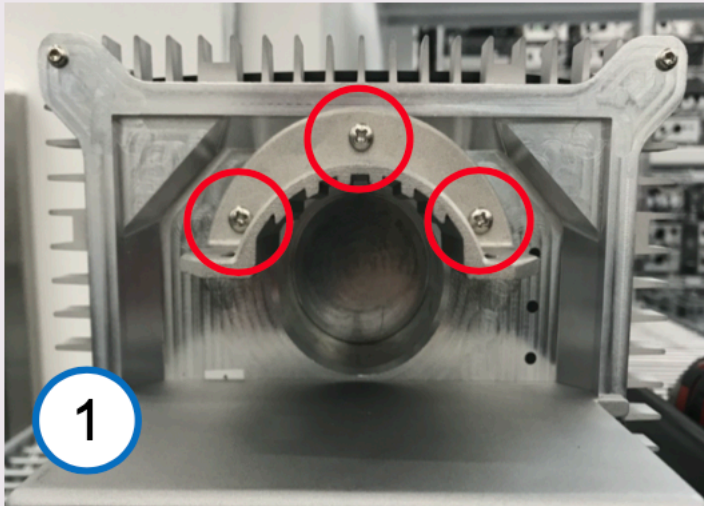
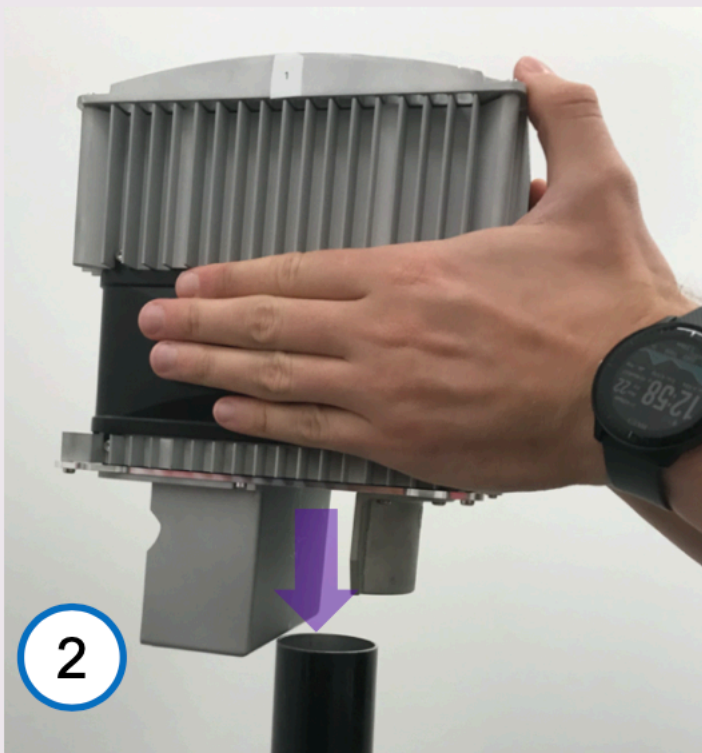


Mount the Terragraph radios on a pole according to the site plan as follows:

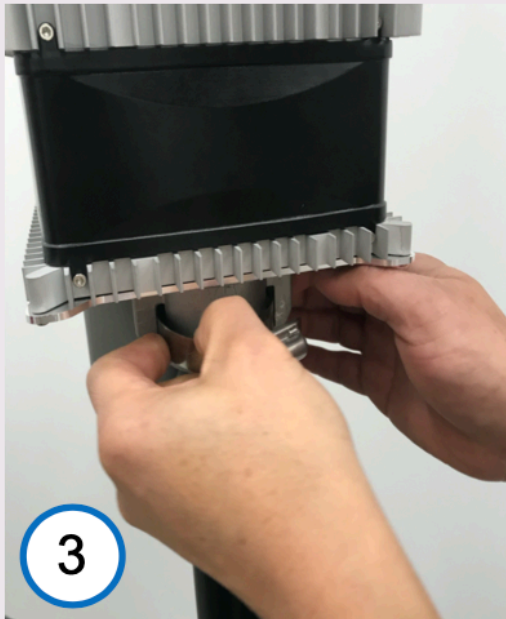
1. Secure the mounting bracket to the Terragraph main housing with 3 screws.



2. Mount the Terragraph radio on to the pole.



3. Thread the stainless steel band clamp through the mounting bracket. The provided band clamps support a pipe diameter of 4-5cm (1.57 to 2.0 inches) and the mounting bracket requires one band clamp.

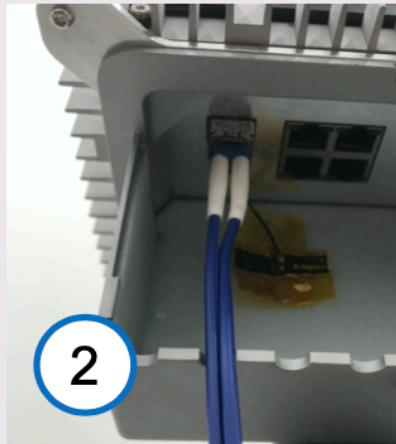
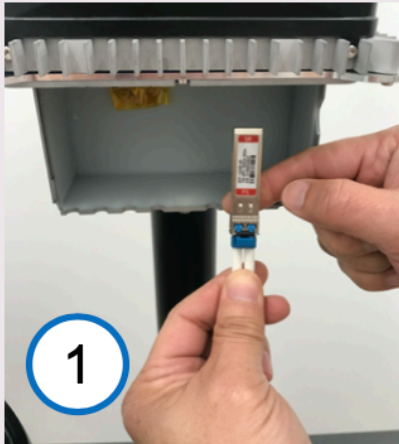


4. Tighten the band clamp with an 8mm socket.



Installing the Fiber

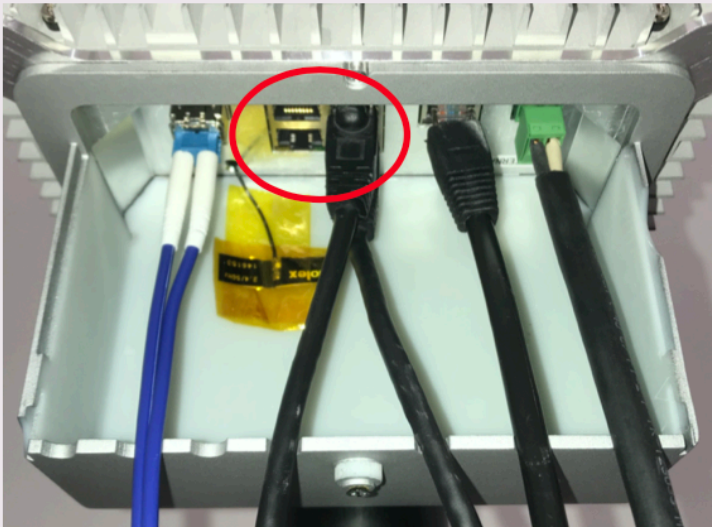
1. Connect the fiber cable to the transceiver.
2. Insert the transceiver into the SFP+ port of the Terragraph radio.



Recommendations: Clean fiber before installing. All fiber used outdoors should be armored or protected in conduit. Test the fiber to the switch/router or transceiver before the installation.

Installing the Ethernet [POE Output]

1. Connect the Ethernet cable to one of the four Ethernet POE output ports. Please note that by default these ports are enabled for 802.3at/af POE output. If passive 24v POE is to be used this setting must be set via the NMS configuration.



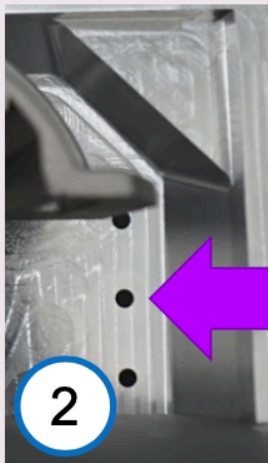
Installing the Ethernet [POE Input]

1. Connect the Ethernet cable to the POE Output port on the POE injector and connect the far end of this cable into the Terragraph radio Ethernet POE input port. If POE injector is not waterproof please ensure it located in an indoor environment or waterproof enclosure.

Note: A passive (non-IEEE) POE injector capable of at least 80w at 54v must be used.



2. Connect the power cable to the power port of the POE injector and validate that the power LED on the Terragraph radio illuminates green.
3. Optional: Connect the Ethernet cable to the LAN port on the POE injector and plug into appropriate network uplink.



Power LED

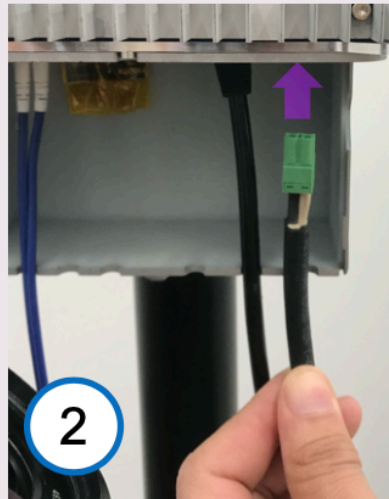
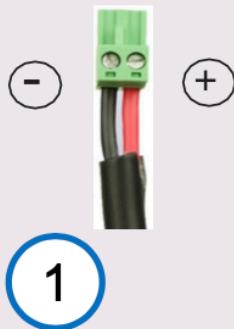
Installing the DC Power Input

Install and secure the power supply according to the site plan and the local electrical codes. The following table shows the maximum cable lengths that are supported between the DC power supply and the Terragraph radio.

Diameter / Cable Gauge	Max Supported Distance	Worst Case Voltage Drop at Max Distance
1.63mm / 14AWG	40m (131FT)	~1.5v
1.29mm / 16AWG	25m (82FT)	~1.5v
1.02mm / 18AWG	15m (49FT)	~1.5v

Note: Only one power source, POE or DC input, should be used to power the Terragraph radio.

1. Strip each wire in the power cable by 10mm (3/8 inch) and insert the wires into the terminal block according to the polarity shown in the figure above.
2. Tighten the terminal block screws very firmly and verify that the wires are well secured.
3. Insert the power terminal block into the DC power input port on the Terragraph radio.
4. Validate that the power LED on the Terragraph radio illuminates green.



Caution: For each cable that slopes downwards to a cable gland or a building penetration, make sure that you form a drip loop in the cable, 80 to 130 millimeters (3 to 5 inches) in width. This will prevent water from running along the cable and entering the enclosure or the building where the cable terminates.

Note: If the Terragraph radio is installed on a rooftop, make sure that all power and networking cables are placed in a conduit to protect them and to minimize tripping hazards.

Physical Acceptance Criteria

Terragraph DN/CN Checklist

Validate Physical Installation

1. Confirm that the Terragraph radios have been installed according to work order, permits, and cut sheet.
2. Confirm that all bolts and washers have been installed and are securely tightened.
3. Confirm that the proper cable management practices have been followed, including the use of drip loops, strain relief, proper bend radius, and cables are secured.
4. Confirm that weatherproofing has been completed at the site for each radio connector. All connections are well seated and the cable cover is correctly tightened.

Validate Power and Grounding

1. Verify the AC voltage of the power supply input.
2. Verify the DC voltage of the power supply output: +54VDC.
3. Confirm that grounding, surge protection, and lightning protection conform to local standards.
4. Verify that the Terragraph's power LED is illuminated green.

Validate Ethernet, and Fiber Connections

1. If applicable, verify that the fiber terminal is seated in the SFP+ module and that the SFP+ module is correctly inserted into the Terragraph radio.
2. Test all fiber and Ethernet cables prior to connecting to Terragraph to verify they are working correctly.

Validate Link Parameters

1. Verify that all radios have been aligned and aimed in accordance with the cut sheet.
2. Verify that the line of sight between the radios in a link has no obstructions. If there are obstructions, note them in the installation documentation.
3. Verify that the GPS antenna on top of the Terragraph radio has a clear view of the sky

Validate Installation Documentation

1. Confirm that the labeling is complete on all equipment and cables as per the installation plan, with durable label material used throughout.
2. Confirm that the following site pictures have been taken for future records:
 - Picture of the entire equipment installation site taken from the ground.
 - Picture of each antenna (close-up) and its forward-facing background.
 - Picture of other equipment used in the installation, such as enclosures and power supplies.